

CAPITAL PROJECTS - FYE 2017 (000)						
PROJECT	Page #	Source of Funds			Other Funding Source	Total Costs
		Capital Reserve Fund	General Obligation Bonds	Other		
<b>1) ROADS</b>						
A) TOWN-WIDE PAVEMENT MANAGEMENT PROGRAM	263	\$ 79				\$ 79
B) TRAFFIC SIGNAL REPLACEMENT AND UPGRADE	264	\$ 30				\$ 30
C) ROUTE 1 - VERGENNES COURT	265			\$ 260	Local Road Accident Reduction Program	\$ 260
D) GROTON LONG POINT BRIDGE RECONSTRUCTION	266	\$ 250				\$ 250
H) NORTH STONINGTON ROAD BRIDGE	267	\$ 313		\$ 884	Stonington/Local Bridge Program	\$ 1,197
K) LOTCIP ROADWAYS AND INTERSECTIONS	268	\$ 160				\$ 160
SUBTOTAL		\$ 832		\$ 1,144		\$ 1,976
<b>2) DRAINAGE AND WATERSHED PROTECTION</b>						
A) CULVERT REHABILITATION	269	\$ 45				\$ 45
C) FISHTOWN ROAD IMPROVEMENTS	270	\$ 90				\$ 90
SUBTOTAL		\$ 135				\$ 135
<b>3) SIDEWALKS</b>						
A) MYSTIC STREETSCAPE - PHASE III	271	\$ 15		\$ 60	HPP Grant	\$ 75
B) REPLACEMENT SIDEWALK CONSTRUCTION	272			\$ 100	LoCIP	\$ 100
SUBTOTAL		\$ 15		\$ 160		\$ 175
<b>4) PARKS AND RECREATION</b>						
B) TRAIL IMPROVEMENT PROGRAM	273	\$ 50				\$ 50
E) GOLF COURSE COMFORT STATION	274			\$ 50	LoCIP	\$ 50
K) NOANK DOCK	275	\$ 50				\$ 50
SUBTOTAL		\$ 100		\$ 50		\$ 150
<b>5) EDUCATION</b>						
A) SCHOOL REFERENDUM	276		TBD*			
I) CATHERINE KOLNASKI	277	\$ 127				\$ 127
J) MARY MORRISSON	278	\$ 80				\$ 80
K) NORTHEAST ACADEMY	279	\$ 84				\$ 84
SUBTOTAL		\$ 291				\$ 291
<b>6) PUBLIC BUILDINGS</b>						
C) TOWN HALL COMPLEX	280	\$ 100				\$ 100
L) LEASED BUILDINGS	281	\$ 75				\$ 75
SUBTOTAL		\$ 175				\$ 175
<b>7) TECHNOLOGY</b>						
A) NETWORK INFRASTRUCTURE UPGRADE	282			\$ 100	LoCIP	\$ 100
B) COMPUTER TECHNOLOGY ACQUISITION - SOFTWARE SYSTEMS	283	\$ 1,189				\$ 1,189
E) DISPATCH WORK STATION REPLACEMENT	284	\$ 35				\$ 35
SUBTOTAL		\$ 1,224		\$ 100		\$ 1,324
<b>8) PLANNING AND ECONOMIC DEVELOPMENT</b>						
A) ECONOMIC ASSISTANCE FUND	285	\$ 50				\$ 50
B) OPEN SPACE ACQUISITION	286	\$ 50				\$ 50
SUBTOTAL		\$ 100				\$ 100
<b>9) ENERGY EFFICIENCY AND CONSERVATION</b>						
A) LED STREETLIGHTS	287			\$ 465	Rebates/Third Party	\$ 465
SUBTOTAL				\$ 465		\$ 465
<b>10) WATER POLLUTION CONTROL FACILITY</b>						
A) SEWER LINE INFRASTRUCTURE REPAIR	288			\$ 51	WPCF User Fees	\$ 51
B) PUMP STATIONS	289			\$ 549	WPCF User Fees	\$ 549
C) TREATMENT FACILITY	291			\$ 551	WPCF User Fees	\$ 551
SUBTOTAL				\$ 1,151		\$ 1,151
<b>TOTAL</b>		<b>\$ 2,872</b>	<b>\$ -</b>	<b>\$ 3,070</b>		<b>\$ 5,942</b>

\* No formal FYE 2017 budget action is requested on these items by the Town Council or RTM at this time. Projects are shown for information purposes only pending future action by the Town Council and RTM.

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT A) TOWN-WIDE PAVEMENT MANAGEMENT PROGRAM	ACTIVITY/DEPARTMENT 1) ROADS
---	---------------------------------

DESCRIPTION/PURPOSE/JUSTIFICATION

The Town is responsible for funding the entire road network of 128 center line miles (Town, City, and Groton Long Point) of accepted roads. A pavement management study was completed for the entire network. This formal evaluation provided a systematic, consistent approach to the evaluation of the present condition of the road surface. It is used to prioritize the repairs. It is not intended to replace sound engineering judgment, which should dictate specific needs for an individual project. All roads identified in this project fall under the definition of needing rehabilitation. This is defined as milling the top two inches of old asphalt from the surface and replacing with new asphalt or full depth reclamation, where the asphalt is ground up and mixed with the base to establish a new base and then resurfaced with three to five inches of new asphalt. Pavement maintenance and repair activities are not to be funded under this project. These are found in the operating budgets of the respective subdivisions.

A referendum was approved in November 2012 totaling \$11,200,000 to fund pavement management activities in the three areas of the Town for the next five years. The Town's portion is \$6,364,800, the City's portion is \$3,542,011, and Groton Long Point's portion is \$986,703.

Requested for FYE 17 are funds (\$79,000) to update the road inventories last completed in 2008.

Programmed for FYE 18 will be another bond referendum to continue the systematic, consistent approach for maintaining our roads. The Town's estimated cost for the next referendum is \$7,000,000, the City of Groton is \$3,900,000, and Groton Long Point is \$1,100,000.

Historical data for the Town shows a reduction of pavement area by 1% results in future savings in maintenance repair costs.

Engineering: In-house

Construction: Combination-Contractor for pavement recycling, in-house paving and restoration

Impact on operating budget: Funds for repairs can be reallocated to other roads increasing pavement ratings

Sustainability Goals: Goal 3 (reduce greenhouse gas)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	79						79
B. Land and Right of Way								0
C. Construction	G		12000					12000
D. Equipment								0
E. Other Costs								0
Total	C,G	79	12000	0	0	0	0	12079

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

**CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL**

<b>PROJECT</b> B) TRAFFIC SIGNAL REPLACEMENT AND UPGRADE	<b>ACTIVITY/DEPARTMENT</b> 1) ROADS
--	--

**DESCRIPTION/PURPOSE/JUSTIFICATION**

The Town is responsible for traffic signals installed at the intersections of Town roads that control traffic from a driveway onto a Town road, or a driveway onto a State road, installed at the Town's request. All other locations are the responsibility of the State DOT. Currently, the Town has four intersections where traffic signals have been installed. Those are Military Highway/Crystal Lake Road, Gungywamp Road/Briar Hill Road, Poquonnock Road/Village Lane, and Route 1/Harry Day Drive. The traffic heads and controllers are becoming outdated and replacement circuit boards for the controllers are becoming rare.

Funds were approved in FYE 09 (\$35,000) for a consultant traffic engineer to review each of the intersections and prepare a report of the condition of existing equipment, the continuing need for the traffic signals, a recommended replacement schedule, and cost estimates. This report identified upgrades to Military Highway at Crystal Lake Road, Gungywamp Road at Briar Hill Road, Poquonnock Road at Village Lane, Route 1 at Harry Day Drive, and the elimination of a signal at Bridge Street at Kings Highway (completed). Funds were approved in FYE 14 (\$25,000) to complete the design of the replacement of the traffic signal at Gungywamp Road at Briar Hill Road and in FYE 16 (\$213,000) for engineering and construction.

Requested for FYE 17 are funds (\$30,000) for the design of a traffic signal replacement at the intersection of Poquonnock Road and Village Lane.

Programmed for FYE 18 are funds (\$270,000) for the traffic signal replacement at Poquonnock Road and Village Lane. The light at Crystal Lake Road will be addressed as part of its reconstruction. If approved, this will complete the upgrade to Town owned traffic signals.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: New LED signals reduce maintenance costs and save 80% in electricity

Sustainability Goals: Goal 1 (reduce overall energy use)

**RECOMMENDED FINANCING (000)**

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	30						30
B. Land and Right of Way								0
C. Construction	C		270					270
D. Equipment								0
E. Other Costs								0
<b>Total</b>	<b>C</b>	<b>30</b>	<b>270</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300</b>

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
C) ROUTE 1 - VERGENNES COURT	1) ROADS

DESCRIPTION/PURPOSE/JUSTIFICATION

The congestion in the area of the Bridge Market, Claude Chester School and Vergennes Court has led to a number of pedestrian and vehicle accidents. The marked increase of traffic on Route 1, the increased use of the recreational fields at Poquonnock Plains Park, and increased school traffic has caused near misses and traffic congestion, resulting in traffic backing up into the intersection of Route 1 and Route 117.

Funds were approved in FYE 05 for conceptual design/permitting/cost estimating for the Route 1 and Vergennes Court intersection improvements. This study was completed and concluded that the closure of this intersection will not adversely overload the remaining intersections in this neighborhood (Depot Road and Central Avenue). Additional funds were approved in FYE 14 to complete the design, permitting and construction to dead end Vergennes Court at Route 1, while still providing emergency vehicle and pedestrian access.

Requested for FYE 17 are construction funds (\$260,000) based on an estimate prepared by CONNDOT. Design, rights of way acquisition and 10% matching local funds are already approved (FYE 14). An application submitted to the Southeastern Connecticut Council of Governments for funds from CONNDOT's local Road Accident Reduction Program was approved subject to the availability of funds.

Engineering: Consultant  
Construction: Contractor  
Impact on operating budget: No impact  
Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	O	260						260
D. Equipment								0
E. Other Costs								0
Total	O	260	0	0	0	0	0	260

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other (Local Road Accident Reduction Program)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT D) GROTON LONG POINT BRIDGE RECONSTRUCTION	ACTIVITY/DEPARTMENT 1) ROADS
--	---------------------------------

DESCRIPTION/PURPOSE/JUSTIFICATION

The Town of Groton retained AECOM (formerly URS Corporation) to prepare an engineering investigation and evaluation study of options for the rehabilitation or replacement of the Groton Long Point Bridge over Palmer's Cove, including the approach causeways. This study was necessitated by the deteriorating condition of the bridge and the concerns regarding the capability of the bridge and causeway to withstand a storm surge. The study was completed and presented to the Town Council in October 2013. Additional funds were allocated to refine the design of "Option 2" which calls for the replacement of the superstructure, repair of the causeway, rehabilitation of the substructure, and the installation of a separate sidewalk and elevated boardwalk.

Project limits extend from the intersection of East Shore Avenue to the Esker Point Beach main parking lot (crosswalk to crosswalk). In order for the Department to prepare for a bond referendum, additional work must be completed as follows:

Sidewalk: Determine whether the sidewalk should be on the north or south side of the bridge.

Undergrounding of Utilities: Electrical lines - Investigate the cost and determine if this would be grant reimbursable under Federal Bridge Program. Included would be low level street lighting along the causeway.

Grants: Explore whether portions of the entire project may be eligible under the Federal Bridge Program. The construction portion of the project is eligible for Local Transportation Capital Improvement Program (LOTICIP) funds and an application will be submitted to the Southeastern Connecticut Council of Governments. A municipality is responsible for engineering design and permitting for eligible projects. The State will provide construction funds.

Requested for FYE 17 are funds (\$250,000) to complete preliminary engineering for the project to prepare for a FYE 19 bond referendum for construction and to serve as the Town's portion of a LOTICIP project.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 4 (adapt to climate change)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	250						0 250
B. Land and Right of Way								0
C. Construction	G			TBD				0
D. Equipment								0
E. Other Costs				TBD				0
Total	C,G	250	0	TBD	0	0	0	250

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
H) NORTH STONINGTON ROAD BRIDGE	1) ROADS

DESCRIPTION/PURPOSE/JUSTIFICATION

In March 2010 the North Stonington Road Bridge, which straddles Groton and Stonington, was in poor condition following a 500 year storm. Groton and Stonington hired an engineering firm to perform an inspection and load rating analysis of the bridge. The inspection revealed that the superstructure should be repaired or replaced, and a weight restriction was placed on the bridge. The condition of the bridge was not a result of the flooding.

Funding was approved in FYE 12 to design the repair work and the cost was shared 50/50 with Stonington. Groton's share for the design and construction of the repairs was \$50,000. Repair work began on the bridge in June 2012. It became clear that the deck would have to be replaced, something not anticipated at the start of work. Work stopped and the engineer estimated the cost of deck replacement to be \$200,000 or replacement of the entire superstructure to be \$750,000.

On March 31, 2014, with Town Council authorization, a settlement was reached with the original engineering firm for \$90,000. These funds were used to hire a consulting engineering firm to investigate the existing abutments and proposed alternatives to reestablish the bridge. That investigation has been completed and reviewed with the Town of Stonington.

A preliminary application has been submitted for a 47.79% grant through the State's Local Bridge Program for FYE 16. If approved, the Town and Stonington must commit to the project by June, 2016.

Programmed for FYE 17 are funds for design (\$142,000) and construction (\$1,055,000) to reestablish the bridge. It is estimated that the grant will cover \$571,000, with the remainder shared 50/50 between the towns of Groton and Stonington.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: None

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	O	105						105
	C	37						37
B. Land and Right of Way								0
C. Construction	O	779						779
	C	276						276
D. Equipment								0
E. Other Costs								0
Total	C,O	1197	0	0	0	0	0	1197

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (Town of Stonington - \$313,000)

(Local Bridge Funding - \$571,000)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
K) LOTCIP ROADWAYS AND INTERSECTIONS	1) ROADS

DESCRIPTION/PURPOSE/JUSTIFICATION

The Local Transportation Capital Improvement Program (LOTICIP) provides State funds to urbanized area municipal governments in lieu of Federal funds. Applications are reviewed and endorsed by the Southeastern Connecticut Council of Governments (SCCOG). The local municipality is responsible for the engineering design and permitting for qualified projects. An application has been submitted for intersection improvements at Bridge Street and Kings Highway. This project will improve traffic circulation to accommodate the increased traffic volume that will result from 800 Electric Boat employees occupying the former Caldor Store at 9 Kings Highway. SCCOG has indicated that the project will be funded and it is estimated that the engineered design will cost \$160,000. Other projects that have been identified for LOTICIP applications include intersection improvements at Hazelnut Hill Road and Route 117 and raising the vertical clearance at the Amtrak overpass on Poquonnock Road.

Requested for FYE 17 are funds (\$160,000) for design and permitting of the Bridge Street and Kings Highway intersection improvements.

Programmed for FYE 18 are funds (\$170,000) for right of way acquisition associated with the Bridge Street/Kings Highway intersection improvements.

Programmed for FYE 19 are funds (\$1,600,000) for construction of the Bridge Street/Kings Highway improvements.

Programmed for FYE 20 are funds (\$200,000) for a LOTICIP application, design and permitting for the Hazelnut Hill Road/Route 117 intersection improvements.

Programmed for FYE 21 are funds (\$50,000) for right of way acquisition for the Hazelnut Hill Road/Route 117 intersection improvements.

Programmed for FYE 22 are funds (\$2,000,000) for construction of the Hazelnut Hill Road/Route 117 intersection improvements.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	160			200			360
B. Land and Right of Way	O		170			50		220
C. Construction	O			1600			2000	3600
D. Equipment								0
E. Other Costs								0
Total	C,O	160	170	1600	200	50	2000	4180

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (LOTICIP)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
A) CULVERT REHABILITATION	2) DRAINAGE AND WATERSHED PROTECTION

DESCRIPTION/PURPOSE/JUSTIFICATION

There are several stream crossings in the town that need pipes replaced and/or the road crossing realigned/widened. The rain event of March 2010 highlighted the need to improve these crossings to prevent the isolation of neighborhoods and to provide access to these areas for emergency response. These projects will correct and renovate those stream crossings, making them safer for vehicles, adding protection for the watercourse and providing protection downstream of the road crossing in the case of overtopping. This project is consistent with the Town of Groton Hazard Mitigation Plan.

Requested for FYE 17 are funds (\$45,000) to engineer the replacement of the existing pipes and the widening of the road at the stream crossing on Pumpkin Hill Road. Preliminary investigation by the Department has determined that a portion of the road north of the stream crossing will require reconstruction and realignment to eliminate the overtopping of the road. A drainage analysis will be completed to properly design the system.

Programmed for FYE 18 are funds (\$125,000) for the replacement of the old stone culvert on River Road, opposite house #901. The existing culvert is in a deteriorated state and numerous temporary repairs have been made.

Programmed for FYE 19 are funds (\$125,000) for the replacement of the culvert on Quaker Farm Road. The existing stream crossing consists of twin 36" diameter pipes that would normally carry the flow. However, this area is home to beaver and the twin circular pipes provide an excellent base for their dam construction. These twin pipes would be replaced with a box culvert, providing the Department with an easier structure to clean and the opportunity to install a water "by-pass" structure to keep the water from overtopping the road. Also programmed for FYE 19 will be the construction funds (TBD) for Pumpkin Hill Road.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 4 (adapt to climate change)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	45						45
B. Land and Right of Way								0
C. Construction	C			TBD				250
	C		125	125				
D. Equipment								0
E. Other Costs								0
Total	C	45	125	125	0	0	0	295

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other



CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
C) FISHTOWN ROAD IMPROVEMENTS	2) DRAINAGE

DESCRIPTION/PURPOSE/JUSTIFICATION

In previous years, this project was the reconfiguration of the intersection to correct the issue of vehicles crossing into the opposite traffic lane when making a right hand turn onto Fishtown Road from Route 1 and thus, was in the Roads section of the CIP. Recurring flooding events in recent years have effectively prevented east/west traffic movements through this intersection on Route 1 during these events. Due to this issue, the focus of this project was changed from road alignment to the correction of the flooding at this location. This project is consistent with the Town of Groton Hazard Mitigation Plan.

Eccleston Brook floods the intersection of Route 1, Noank Ledyard Road, and Fishtown Road even during minor rain storms. The flooding is exacerbated by an inefficient series of culverts north of the Valero Gas Station property and the drainage system south in Route 1. The brook was previously relocated during sewer line installation in the 1970s. The brook is home to a native brown trout population.

Approved in FYE 14 were funds (\$45,000) to identify alternatives to redesign the storm water system from Bel-Aire Drive south to the driveway crossing 113 Fishtown Road to include the best management practices for sediment removal. The consultant's study also examined the existing poor turning geometries and the lack of safe crossing for pedestrians and bicycles.

Requested for FYE 17 are funds for design and permitting (\$90,000) with construction programmed for FYE 19 (\$1,200,000). The Town will be applying for Local Transportation Capital Improvement Program (LOTICIP) funds from the State available through the Southeastern Council of Governments for construction. This program requires the Town to fund the design.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 4 (adapt to climate change)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	90						90
B. Land and Right of Way								0
C. Construction	O			1200				1200
D. Equipment								0
E. Other Costs								0
Total	C,O	90	0	1200	0	0	0	1290

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (LOTICIP)

**CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL**

<b>PROJECT</b>	<b>ACTIVITY/DEPARTMENT</b>
A) MYSTIC STREETSCAPE - PHASE III	3) SIDEWALKS

**DESCRIPTION/PURPOSE/JUSTIFICATION**

After completion of Mystic Streetscape - Phase II, there is some funding available to complete a smaller Phase III project. Although Phase III was not originally envisioned as part of the streetscape project, it will allow the finishing of some sidewalks and other items not included in Phase I and Phase II. Projects under consideration include the completion of sidewalks along Noank Road from the Phase II project limits south to the intersection with High/Latham Streets and Fort Rachel Place; construction of sidewalks along the local portion of Water Street; and establishing a location to display the bull gears from the Mystic River Bascule Bridge.

Other potential projects being evaluated include addressing a low area in Gravel Street that floods during extremely high tides.

The funding for this project will be 80% Federal High Priority Project (HPP) grant and 20% matching funds, which will come from available State LoCIP funding. The balance of HPP and LoCIP funds upon the completion of Phase II will determine what can be accomplished in Phase III. The most recent discussions with CONNDOT indicate that a project in the range of \$1,000,000 may be feasible. This is subject to change based on the closeout of Phase II.

Requested for FYE 17 are funds (\$75,000) for the design of the chosen project(s).

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 3 (reduce greenhouse gas) and Goal 4 (adapt to climate change)

**RECOMMENDED FINANCING (000)**

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	15						15
	O	60						60
B. Land and Right of Way								0
C. Construction			TBD					0
D. Equipment								0
E. Other Costs								0
Total	C,O	75	TBD	0	0	0	0	75

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (HPP Grant)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

ACTIVITY/DEPARTMENT

B) REPLACEMENT SIDEWALK CONSTRUCTION

3) SIDEWALKS

DESCRIPTION/PURPOSE/JUSTIFICATION

This project addresses the need to replace existing, deteriorating concrete and asphalt sidewalks. All replaced sidewalks will provide ramps to make them accessible to all users. This project funds large projects such as the replacement of an entire sidewalk network and small projects such as the replacement of an individual panel of deteriorated concrete or asphalt sidewalk. This project is in keeping with the policies identified in the Plan of Conservation and Development (page 118) to create an overall pedestrian network between and within activity nodes.

Requested for FYE 17 are funds (\$100,000) to replace the existing asphalt sidewalks on Midway Oval and Central Avenue. All the sidewalks are showing distress and this project is expected to take two years to complete.

Programmed for FYE 18 are funds (\$210,000) to complete the Midway Oval and Central Avenue sidewalk replacements.

Programmed for FYE 19 are funds (\$250,000) to replace all of the existing asphalt and the deteriorated portions of the concrete sidewalks on High Street, Mystic from the intersection with Godfrey Street to the intersection with New London Road with new concrete sidewalks. Existing granite curbing will be reset. Originally planned for FYE 17, this project has been pushed out to FYE 19 to allow Aquarion to complete the High Street water main replacement.

Engineering: In-house

Construction: Contractor/In-house

Impact on operating budget: No impact

Sustainability Goals: Goal 1 (reduce overall energy use) and Goal 2 (reduce greenhouse gas)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C		210	250				460
	O	100						100
D. Equipment								0
E. Other Costs								0
Total	C,O	100	210	250	0	0	0	560

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (LoCIP)

**CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL**

**PROJECT**

B) TRAIL IMPROVEMENT PROGRAM

**ACTIVITY/DEPARTMENT**

4) PARKS AND RECREATION

**DESCRIPTION/PURPOSE/JUSTIFICATION**

In FYE 04, the Town completed a comprehensive Bicycle, Pedestrian and Trails Master Plan. In addition to enhancing the Town's recreational and physical fitness opportunities, the master plan will create an alternative transportation network of bikeways, sidewalks and trails that link neighborhoods to work and recreation destinations.

Approved for FYE 15 was \$25,000 to be used for matching trail grants. \$25,000 was also approved to identify opportunities to connect Depot Road to South Road and to Tower Road utilizing bikeways, bike-lanes, signage, and other bike amenities. A consultant has been chosen for this project and a final report is expected in March, 2016.

Requested for FYE 17 are funds (\$50,000) for an appraisal, acquisition of an easement, and construction of approximately 135 feet of bike path from the west end of the G&S Trolley Trail at Knoxville Court to Industrial Drive and for the restriping of Industrial Drive to Depot Road to accommodate bicycle traffic.

Programmed for FYE 18 are funds (\$30,000) for design and construction of a pedestrian bridge to connect Cutler Middle School to Beebe Woods. Constructing this bridge would complete the Cross Town Trail, a six mile trail that runs from Bluff Point to Town's End.

Programmed for FYE 19 are funds (\$35,000) to design and permit a bike path from the G&S Trolley Trail to Fitch High School.

Programmed for FYE 20 are funds (\$140,000) to start construction of the bike path from the G&S Trolley Trail to Fitch High School.

Programmed for FYE 21 are funds (\$140,000) to complete the bike path from the G&S Trolley Trail to Fitch High School.

Programmed for FYE 22 are funds (\$48,000) for a bike path from Knoxville Court to Sutton Park. This project would include a combination of widening the road and striping of Knoxville Court, Midway Oval and Central Avenue for a bike path via Route 1.

Engineering: In-house

Construction: In-house/Contractor

Impact on operating budget: Minimal impact

Sustainability Goals: Goal 3 (reduce greenhouse gas emissions and/or reduction of vehicle trips)

**RECOMMENDED FINANCING (000)**

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C			35				35
B. Land and Right of Way	C	15						15
C. Construction	C	35	30		140	140	48	393
D. Equipment								0
E. Other Costs								0
Total	C	50	30	35	140	140	48	443

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

ACTIVITY/DEPARTMENT

E) GOLF COURSE COMFORT STATION

4) PARKS AND RECREATION

DESCRIPTION/PURPOSE/JUSTIFICATION

A proposed comfort station near the 9th hole will enhance the golfing experience by providing a convenient place to stop on the course. The station will help improve pace of play reducing travel time to the clubhouse. A third benefit is the provision of some shelter to golfers during a sudden storm.

The comfort station is a prefabricated toilet building placed over a 1,000 gallon underground concrete collection vault. The building has windows for natural lighting and does not require plumbing or electricity.

Requested for FYE 17 are funds (\$50,000) for construction of the comfort station.

Engineering: In-house

Construction: Contractor

Impact on operating budget: Minimal impact

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	O	50						50
D. Equipment								0
E. Other Costs								0
Total	O	50	0	0	0	0	0	50

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other (LoCIP)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

K) NOANK DOCK

ACTIVITY/DEPARTMENT

4) PARKS AND RECREATION

DESCRIPTION/PURPOSE/JUSTIFICATION

The Noank Dock is a fixed platform style dock that requires on-going repairs and maintenance. Severe storms in 2011 and 2012 had significant impact on the dock's condition. Some of the stringers and decking are in poor condition and some pilings should be replaced. The proposal is to replace the dock and repair the seawall and rock rip-rap. During high tide, water washes away some of the soil behind the seawall causing sinkholes to develop along the shore.

Approved in FYE 14 were funds (\$20,000) for planning and engineering. Approved in FYE 16 were funds (\$106,000) for construction. The project was bid and all bids were higher than the available funding.

Requested for FYE 17 are additional funds (\$50,000) to allow the Public Works Department to place the project out to bid in October 2017 for construction in late fall. This will allow the facility to be used during the summer season and also bid the project at an opportune time to bid small projects such as this. The dock will be restructured using a "flow through" decking material and Greenhart piles (which are safer for the environment and eliminate preservative leachate) and it will be fully ADA compliant.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: Minimal reduction in repair and maintenance costs

Sustainability Goals: Goal 4 (adapt to climate change)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2016	FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C	50						50
D. Equipment								0
E. Other Costs								0
Total	C	50	0	0	0	0	0	50

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

**CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL**

<b>PROJECT</b>	<b>ACTIVITY/DEPARTMENT</b>
A) SCHOOL REFERENDUM	5) EDUCATION

**DESCRIPTION/PURPOSE/JUSTIFICATION**

After the failure of the referendum on the Phase II school projects, a facilities and educational needs assessment was conducted to evaluate Groton educational facilities. The School Facilities Initiatives Task Force was formed in January 2013 to develop a plan (now known as 'Groton 2020') to continue the school facilities plan. The Middle School Educational Specifications provided to the Task Force by the Board of Education call for one middle school of grades 6 to 8, preferably located adjacent to the high school. Declining enrollment led the Board of Education to determine that only one middle school was needed to serve the Town. Three aging elementary schools -- Claude Chester, Pleasant Valley, and S. B. Butler -- will be closed and the two existing middle schools will be converted to elementary schools. The Educational Specification addresses important diversity and consolidation issues, responds to declining enrollments, and provides the delivery of a cost effective educational program.

Groton 2020 has identified the Merritt property, a 35 acre site next to the high school, as the preferred site for the new middle school. This land was purchased for recreational purposes and partially funded by a Department of Energy and Environmental Protection (DEEP) grant. The Town is working with DEEP to find a suitable open space parcel to substitute for the Merritt property so that it can be used for school purposes. The three vacated elementary schools will be returned to the Town for future disposition.

While the project cost for Groton 2020 is approximately \$195,000,000, efforts are underway to identify potential cost saving alternatives. A November 2016 referendum is anticipated. No formal FYE 2017 budget action is requested by the Town Council or RTM at this time. The project is shown for informational purposes only pending future action by the Town Council and RTM.

Engineering: Consultant  
Construction: Contractor  
Impact on operating budget:  
Sustainability Goals:

**RECOMMENDED FINANCING (000)**

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	G	TBD						0
B. Land and Right of Way								0
C. Construction	G	TBD						0
D. Equipment								0
E. Other Costs								0
<b>Total</b>	<b>G</b>	<b>TBD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

I) CATHERINE KOLNASKI

ACTIVITY/DEPARTMENT

5) EDUCATION

DESCRIPTION/PURPOSE/JUSTIFICATION

Catherine Kolnaski Elementary School opened in 2008. The current security system in the school does not allow full coverage of the perimeter of the school or the common areas and halls inside the school. This is a proposal to extend security coverage to all of these areas. These improvements will bring this school up to current security standards that were not in place at the time the school was planned.

Requested for FYE 17 are funds (\$127,000) for plans and construction of security system upgrades.

While there have been state grants for security updates in the past, none are currently available.

Plans and specifications for this project were partially developed by Groton Public Schools in FYE 12.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C	127						127
D. Equipment								0
E. Other Costs								0
Total	C	127	0	0	0	0	0	127

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other



**CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL**

**PROJECT**

J) MARY MORRISSON

**ACTIVITY/DEPARTMENT**

5) EDUCATION

**DESCRIPTION/PURPOSE/JUSTIFICATION**

Studies undertaken by the Town Council and Board of Education agree that it is cost effective to keep Mary Morrisson in use. Continued use requires fire code and ADA accessibility compliance, window replacement, security upgrades, central air conditioning and ventilation (HVAC), plumbing and electrical upgrades, expansion of the parking lot, and replacement of temporary classrooms with a permanent addition.

Requested for FYE 17 are funds (\$80,000) for plans and specifications for parking/vehicle access.

Programmed for FYE 18 are funds (\$420,000) for construction of parking. Also programmed for FYE 18 are funds (\$100,000) for plans and specifications for HVAC and funds (\$302,000) for HVAC construction.

Programmed for FYE 19 are funds (\$314,000) for life safety code construction for which design work was funded in FYE 13 and (\$132,000) for plans and specifications to address ADA issues.

Programmed for FYE 20 are funds (\$374,000) for ADA construction and (\$187,000) for plans and specifications for replacement of temporary classrooms with permanent space.

Programmed for FYE 21 are funds (\$900,000) for permanent space construction and (\$100,000) for plans and specifications for a replacement electrical system.

Programmed for FYE 22 are funds (\$1,377,000) for electrical system construction.

State Department of Education Grants may reimburse approximately 50% of ADA project costs. The State requires local approval of entire project funding to apply for the grant. If CIP funding is approved, Groton Public Schools will apply and reimbursed funds will be returned to the Capital Reserve Fund.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 1 (reduce overall energy use) and Goal 2 (transition to renewable energy)

**RECOMMENDED FINANCING (000)**

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C	80	100	132	187	100		599
B. Land and Right of Way								0
C. Construction	C		722	314	374	900	1377	3687
D. Equipment								0
E. Other Costs								0
Total	C	80	822	446	561	1000	1377	4286

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
K) NORTHEAST ACADEMY	5) EDUCATION

DESCRIPTION/PURPOSE/JUSTIFICATION

Northeast Academy was opened in 2008. The current security system in the school does not allow full coverage of the perimeter of the school or the common areas and halls inside the school. This is a proposal to extend security coverage to all of these areas. These improvements will bring this school up to the current security standards that were not in place at the time the school was built.

Requested for FYE 17 are funds (\$84,000) for design and construction of security system upgrades.

While there have been state grants for security updates in the past, none are currently available.

Plans and specifications for this project were partially developed by Groton Public Schools in FYE 12.

Engineering: Consultant  
Construction: Contractor  
Impact on operating budget: No impact  
Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C	84						84
D. Equipment								0
E. Other Costs								0
Total	C	84	0	0	0	0	0	84

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL																																																																													
PROJECT			ACTIVITY/DEPARTMENT																																																																										
C) TOWN HALL COMPLEX			6) PUBLIC BUILDINGS																																																																										
DESCRIPTION/PURPOSE/JUSTIFICATION																																																																													
<p>To address the concerns of the Town's insurance carrier, an evaluation of Town Hall, in particular, Land Records and Information Technology, is needed to ensure the security of expensive equipment and important non-replaceable records. There are many other issues in Town Hall that need to be addressed, such as HVAC, electrical and energy efficiency. All of these concerns should be included in a comprehensive plan for the entire complex.</p> <p>The analysis of space use must include both buildings that currently occupy the site (the former Fitch Middle School and the Town Hall). This site is now a municipal complex, where additional departments of the general government and the Board of Education could co-locate in spaces that function efficiently.</p> <p>Approved in FYE 15 was \$55,000 to hire professional consulting services to: 1) perform ADA and building code analysis; 2) conduct a physical condition assessment; 3) identify space needs for those departments that may move into the facility; and 4) provide a rough order of magnitude cost for the renovations to maximize use of the facilities. Two options for reuse of Fitch Middle School, which would consolidate Town and Board of Education services, were presented to the Town Council in August, 2015. The cost for both options was considered too high and a more limited reuse plan will be developed.</p> <p>Approved in FYE 16 were funds (\$475,000) to address the roof issues found by the assessment. The A-wing roof must be replaced. The B, C, and D-wing roofs will be repaired.</p> <p>Requested for FYE 17 are funds (\$100,000) to make required code modifications and minor repairs to the interiors in preparation for moving recreation programs from William Seely to Fitch Middle.</p> <p>Engineering: Consultant            Construction: Contractor            Impact on operating budget: Unknown until study has been completed            Sustainability Goals: Goal 1 (reduce overall energy use) and Goal 4 (adapt to climate change)</p>																																																																													
RECOMMENDED FINANCING (000)																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 25%;"></th> <th rowspan="2" style="width: 10%;">Source of Funds*</th> <th colspan="6" style="width: 55%;">Estimated Funding by Year</th> <th rowspan="2" style="width: 15%;">Total Estimated Cost</th> </tr> <tr> <th>FYE2017</th> <th>FYE2018</th> <th>FYE2019</th> <th>FYE2020</th> <th>FYE2021</th> <th>FYE2022</th> </tr> </thead> <tbody> <tr> <td>A. Planning and Engineering</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>B. Land and Right of Way</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>C. Construction</td> <td style="text-align: center;">C</td> <td style="text-align: center;">100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">100</td> </tr> <tr> <td>D. Equipment</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>E. Other Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;">C</td> <td style="text-align: center;">100</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>										Source of Funds*	Estimated Funding by Year						Total Estimated Cost	FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	A. Planning and Engineering								0	B. Land and Right of Way								0	C. Construction	C	100						100	D. Equipment								0	E. Other Costs								0	<b>Total</b>	C	100	0	0	0	0	0	100
	Source of Funds*	Estimated Funding by Year						Total Estimated Cost																																																																					
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022																																																																						
A. Planning and Engineering								0																																																																					
B. Land and Right of Way								0																																																																					
C. Construction	C	100						100																																																																					
D. Equipment								0																																																																					
E. Other Costs								0																																																																					
<b>Total</b>	C	100	0	0	0	0	0	100																																																																					
<div style="display: flex; justify-content: space-between;"> <span>*Funding</span> <span>(C) Capital Reserve Fund</span> <span>(G) General Obligation Bonds</span> </div> <div style="display: flex; justify-content: flex-end;"> <span>(O) Other</span> </div>																																																																													

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

ACTIVITY/DEPARTMENT

L) LEASED BUILDINGS

6) PUBLIC BUILDINGS

DESCRIPTION/PURPOSE/JUSTIFICATION

The Town leases several of its facilities to outside agencies. Although the lessee is responsible for repairs, maintenance, and alterations, the Town is responsible for repairs to the building envelope and structure.

Noank Aquaculture Cooperative Corporation leases a 10,000 square foot building, docks, and land at 98 Main Street to conduct aquaculture operations. As part of the lease of the entire facility, they must provide office space and dockage for the Town's Shellfish Commission and the storage of small boats by the State Department of Agriculture. No work has been performed to the building envelope since 2006 when the Town took possession of the building from the State.

Groton Ambulance, located at 217 North Road, has leased the building and land since August 28, 1980. Public Works has been making required repairs, but the building is now of the age that the windows, roof, and exterior wooden walls must be replaced. The driveway aprons, parking lot, and the driveway shared with Grasso Gardens must be repaved.

Thames Valley Council for Community Action (TVCCA) leases the three wooden structures located at 36, 38 and 40 Central Avenue. Public Works has been making required repairs, but again the buildings are of the age that the windows, roof and exterior wooden walls must be replaced.

Requested for FYE 17 are funds (\$35,000) to replace the roof, including repairs to sheathing, gutters, soffits and fascia, at Groton Ambulance and funds (\$40,000) to resurface the parking lots, driveway, and the access shared with Grasso Gardens.

Programmed for FYE 18 are funds (\$100,000) to replace the roof at the Noank Hatchery.

Programmed for FYE 19 are funds (\$100,000) to replace windows, roofs and exterior walls at the TVCCA buildings.

Engineering: Consultant/In-house

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Goal 1 (reduce overall energy use)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C	75	100	100				275
D. Equipment								0
E. Other Costs								0
Total	C	75	100	100	0	0	0	275

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

ACTIVITY/DEPARTMENT

A) NETWORK INFRASTRUCTURE UPGRADE

7) TECHNOLOGY

DESCRIPTION/PURPOSE/JUSTIFICATION

This project is an ongoing effort to improve the efficiency of the Town's network infrastructure to complete the Town's work efficiently. Powerful software applications and interfaces are necessary and they require a broader and faster network infrastructure.

Requested for FYE 17 are funds (\$100,000) to purchase and install two Storage Area Network (SAN) devices providing the storage capacity required to support the current Town servers. This SAN system will replace the current SAN (HP Lefthand P4500) device that has reached its end-of-life. Third party hardware maintenance support is currently being used and it is unclear how much longer this equipment will be supported. The data on this system will be replicated in the Public Safety Building for disaster recovery.

Programmed for FYE 19 are funds (\$270,000) to set up and install a Virtual Desktop Infrastructure (VDI) project providing a comprehensive desktop environment management system. This project could extend the life span of the current desktop computers by 3 - 4 years. This will provide users with the capability to log into any Town computer and have their desktop information available, while heightening data security throughout the organization.

Programmed for FYE 20 are funds (\$55,000) for the scheduled replacement of all Town network switches.

Engineering: Not applicable

Construction: Not applicable

Impact on operating budget: No impact

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	C			20	10			8
	O	8						8
B. Land and Right of Way								0
C. Construction								0
D. Equipment	C			250	45			92
	O	92						92
E. Other Costs								0
Total	C,O	100	0	270	55	0	0	200

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (LoCIP)

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT B) COMPUTER TECHNOLOGY ACQUISITION - SOFTWARE SYSTEMS	ACTIVITY/DEPARTMENT 7) TECHNOLOGY
---	--------------------------------------

DESCRIPTION/PURPOSE/JUSTIFICATION

Many software systems have reached, or will soon reach, the end of their useful lives. In FYE 14, funds (\$75,000) were appropriated to hire a consultant to undertake a comprehensive review and analysis of the Town's and Board of Education's internal operating processes, procedures, and software needs. The Enterprise Application Software Assessment is complete and in FYE 16, funds (\$380,400) were appropriated to implement the first phase of the Enterprise Application Master Plan for software replacement. This included funding for process review, development of Requests for Proposal for software provider evaluation and selection, price negotiations, contract award and implementation readiness.

Requested for FYE 17 are funds (\$1,189,000) to implement phase two of the Enterprise Application Master Plan for both the Town and the Board of Education. Due to the nature of this project, all costs are being classified as "Other Costs". This project includes:

- a. ERP Implementation and Project Management which includes Finance/Accounting, Human Resources, Fixed Assets, Budget, Purchasing and Payroll;
- b. Various application training and support for departmental information technology systems
- c. Sustainability Planning which includes long-term planning and requirements for all major Town and Board information technology systems;
- d. Improving video/web conferencing capabilities to enhance external communications and internal training.

Projected for FYE 18 through FYE 20 are costs associated with ongoing user training and support; continued implementation of the Enterprise Resource Planning (ERP) project; a GIS assessment and strategic plan; and implementation of a Electronic Document Management System (EDMS). Because this is a multi-year effort, additional costs in outlying years (FYE 18 through FYE 20 and beyond) will be identified for additional specific projects as they are prioritized.

Engineering: Not applicable

Construction: Not applicable

Impact on operating budget: TBD

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction								0
D. Equipment								0
E. Other Costs	C	1189	781	781	961			3712
Total	C	1189	781	781	961	0	0	3712

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT  
E) DISPATCH WORK STATION  
REPLACEMENT

ACTIVITY/DEPARTMENT  
7) TECHNOLOGY

DESCRIPTION/PURPOSE/JUSTIFICATION

The Emergency Telecommunicators' ergonomically designed workstations were installed in 2000. After 15 years of constant use, only one of the eight workstations is still operable. Repair parts are no longer available as the supplier went out of business years ago and the workstations must be replaced in order to conform to requirements for accessibility and employee safety.

Requested for FYE 17 are funds (\$35,000) to purchase and install seven ergonomically designed workstations with a 15 year service life.

While there are no grant funds available to support the purchase and installation of the workstations, the town is eligible for reimbursement from the State of Connecticut for capital equipment acquisition for 50% of the acquisition cost (50/50 match).

If this project is approved, application will be made for the reimbursement prior to the start of fiscal year 2017 to reduce the time between expenditure and reimbursement from the State.

Engineering: Not applicable  
Construction: Vendor  
Impact on operating budget: No impact  
Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction								0
D. Equipment	C	35						35
E. Other Costs								0
Total	C	35	0	0	0	0	0	35

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
A) ECONOMIC ASSISTANCE FUND	8) PLANNING AND ECONOMIC DEVELOPMENT

DESCRIPTION/PURPOSE/JUSTIFICATION

This program provides funding for the construction of necessary public infrastructure improvements associated with new job-creating development opportunities. The goal is to retain, support, and entice new job-creating businesses to Groton by paying for public infrastructure improvements that are extraordinary in nature, and usually beyond the business' ability to pay. Public improvements that would support these businesses can include water and sewer line extensions, electric and telephone extensions, public sidewalks, road improvements, installation of traffic control devices, street lighting, and downstream drainage improvements. Contributions to the fund are requested annually with appropriations made as-needed. Program guidelines were established by the Town Council, which authorizes all expenditures.

To date, four projects have been funded using this program: 1) property acquisition associated with the Midway Industrial area; 2) Shore Avenue relocation associated with the Pfizer/Groton land exchange project; 3) Mystic public restrooms; and 4) partial cost of a new sidewalk on Route 1, east of Buddington Road. As of June 30, 2015 the fund balance is \$512,399.95.

Requested for FYE 17 are funds (\$50,000) to complete projects supporting economic development and/or set aside funds until such projects arise. Expenditures are contingent upon the need for economic assistance to assist a business looking to grow or to relocate to Town. There are presently no projects planned, however the additional funds provide a tool critical to the support of the Town's economic development efforts.

Programmed for FYE 18 through FYE 22 are funds (\$100,000/year) to continue the program and develop a reserve fund to enable the Town to provide assistance for a larger project, or to assist multiple projects in a short time period should they arise.

Engineering: Not applicable

Construction: Not applicable

Impact on operating budget: Not identified at this time; depends on types of projects authorized

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way								0
C. Construction	C	50	100	100	100	100	100	550
D. Equipment								0
E. Other Costs								0
Total	C	50	100	100	100	100	100	550

\*Funding (C) Capital Reserve Fund (G) General Obligation Bonds  
(O) Other



CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT	ACTIVITY/DEPARTMENT
B) OPEN SPACE ACQUISITION	8) PLANNING AND ECONOMIC DEVELOPMENT

DESCRIPTION/PURPOSE/JUSTIFICATION

The Conservation Commission and the Planning Commission through the Plan of Conservation and Development have identified a number of parcels of land that would be worthy of acquisition as Town open space. This would allow the Town to protect natural resources, make trail connections, allow for marsh advancement due to climate change, and fill gaps in and around existing open space. Funds from this project were most recently used to leverage the purchase of the Sparkle Lake Conservation Area on Thomas Road by applying them to the required 25% match for a State Open Space and Watershed Land Acquisition (OSWLA) grant. The Office of Planning and Development Services anticipates submitting another OSWLA grant application in FYE 17 for funds to purchase open space. Groton is eligible to receive up to 75% of the fair market value of a property until 2018, when we are no longer eligible for distressed community benefits and the maximum grant award decreases to 65% of fair market value. Connecting our open space resources creates more recreation opportunities, contributes to a higher quality of life and will benefit the economy.

Requested for FYE 17 are funds (\$50,000) for required appraisals, surveys and environmental assessments to support the OSWLA grant application.

Programmed for FYE 18 are funds (\$100,000) to match an anticipated OSWLA grant.

Programmed for FYE 19 through FYE 22 are funds (\$25,000/year) to investigate potential open space acquisition through required surveys and environmental assessments, to fund negotiations for property acquisition, and to provide matching funds for open space grants. The Open Space Acquisition Fund balance as of June 30, 2015 is (\$95,137.10). Fees collected in lieu of open space dedication through the Planning Commission's subdivision process are also used toward the purchase of open space.

Engineering: Not applicable

Construction: Not applicable

Impact on operating budget: Not applicable

Sustainability Goals: Goal 5 (reduction of impervious surfaces) and Goal 4 (adapt to climate change)

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering								0
B. Land and Right of Way	C	50	100	25	25	25	25	250
C. Construction								0
D. Equipment								0
E. Other Costs								0
Total	C	50	100	25	25	25	25	250

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other

CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL																																																																													
PROJECT				ACTIVITY/DEPARTMENT																																																																									
A) LED STREETLIGHTS				9) ENERGY EFFICIENCY AND CONSERVATION																																																																									
<p style="text-align: center;">DESCRIPTION/PURPOSE/JUSTIFICATION</p> <p>The Town owns the streetlights in the Eversource service area. In 1990 the lights were converted from incandescent and mercury vapor to high pressure sodium vapor, which at the time was the most efficient street lighting source.</p> <p>The LED (light emitting diode) is now the most efficient street lighting source. The life expectancy is three times that of the high pressure sodium and they use 50-75% less energy for the same amount of light.</p> <p>This project involves the conversion/replacement of approximately 1,400 Town-owned cobra head street lights, 42 decorative lights in Mystic and a number of lights in the parking lots of Town-owned buildings with energy efficient LED street lights.</p> <p>The Connecticut Conference of Municipalities (CCM) simplified the acquisition of this technology for the member communities by their LED Streetlight Retrofit Initiative. A CCM-issued Request for Qualifications was evaluated and three companies, based on their responses, were ultimately selected and recommended to the member communities. The Town issued a Request for Proposals (RFP) to the three companies to determine which company could best meet the Town's needs. The proposals have been received and reviewed, and discussions with the company selected for an interview have been started. Town staff is working with the company to develop a project scope, and cost and method to finance the project, and then present it to the Town Council. The project is estimated at \$464,000.</p> <p>Funds were approved in FYE 16 (\$28,000) to replace deficient arms.</p> <p>Requested for FYE 17 are funds (\$465,000) to complete the conversion from high-pressure sodium to LED streetlights. The Town will be eligible for estimated rebates of \$148,000 from the utility company.</p> <p>Engineering: Consultant Construction: Contractor Impact on operating budget: No impact Sustainability Goals: Goal 1 (reduce overall energy use) and Goal 2 (transition to renewable energy)</p>																																																																													
RECOMMENDED FINANCING (000)																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Source of Funds*</th> <th colspan="6">Estimated Funding by Year</th> <th rowspan="2">Total Estimated Cost</th> </tr> <tr> <th>FYE2017</th> <th>FYE2018</th> <th>FYE2019</th> <th>FYE2020</th> <th>FYE2021</th> <th>FYE2022</th> </tr> </thead> <tbody> <tr> <td>A. Planning and Engineering</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>B. Land and Right of Way</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>C. Construction</td> <td>O</td> <td>465</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>465</td> </tr> <tr> <td>D. Equipment</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>E. Other Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td><b>Total</b></td> <td><b>O</b></td> <td><b>465</b></td> <td><b>0</b></td> <td><b>0</b></td> <td><b>0</b></td> <td><b>0</b></td> <td><b>0</b></td> <td><b>465</b></td> </tr> </tbody> </table>										Source of Funds*	Estimated Funding by Year						Total Estimated Cost	FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	A. Planning and Engineering								0	B. Land and Right of Way								0	C. Construction	O	465						465	D. Equipment								0	E. Other Costs								0	<b>Total</b>	<b>O</b>	<b>465</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>
	Source of Funds*	Estimated Funding by Year						Total Estimated Cost																																																																					
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022																																																																						
A. Planning and Engineering								0																																																																					
B. Land and Right of Way								0																																																																					
C. Construction	O	465						465																																																																					
D. Equipment								0																																																																					
E. Other Costs								0																																																																					
<b>Total</b>	<b>O</b>	<b>465</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>																																																																					
<div style="display: flex; justify-content: space-between;"> <span>*Funding</span> <div> <span>(C) Capital Reserve Fund</span> <span>(G) General Obligation Bonds</span> <span>(O) Other (Rebates/ Third Party Financing)</span> </div> </div>																																																																													

CAPITAL IMPROVEMENT PROGRAM  
PROJECT DETAIL

PROJECT

ACTIVITY/DEPARTMENT

A) SEWER LINE INFRASTRUCTURE REPAIR

10) WATER POLLUTION CONTROL FACILITY

DESCRIPTION/PURPOSE/JUSTIFICATION

These projects have been approved by the Water Pollution Control Authority as part of their annual budget and are paid from the user fees collected. This project is in keeping with the policies identified in the Plan of Conservation and Development (page 141) to enhance the infrastructure. The collection system is experiencing deterioration in some of the larger diameter concrete collection piping and in concrete manholes. This project will address the need to repair/replace portions of the existing collection and discharge system as they are identified.

Requested for FYE 17 are funds (\$51,000) to conduct an Inflow & Infiltration (I & I) study of the Indian Field, Corey Road, and Ring Drive neighborhoods adjacent to Fort Hill Brook and Poquonnock Plains Park. The sewer lines will be thoroughly cleaned and visibly inspected with remote camera, and a report prepared identifying major I & I sources and recommended repair methods.

Programmed for FYE 18 are funds (\$572,000) to line the main sewer lateral between the Poquonnock River Pump Station and the WPCF Treatment Plant.

Programmed for FYE 19 are funds (\$11,000) to evaluate the lateral between Toll Gate and Poquonnock Roads for relining, (\$11,000) to evaluate grease reduction methods for the Northwest Interceptor, (\$237,000) for odor control improvements and Hydrogen Sulfide reduction in the collection system, (\$318,000) to reline damaged laterals in the Brookside Area, (\$106,000) for new closed circuit television camera and inspection vehicle, and (\$690,000) for a new combination vacuum/jet sewer cleaning and maintenance vehicle.

Programmed for FYE 20 are funds (\$595,000) to line damaged piping in various areas of the Northwest Interceptor.

Programmed for FYE 21 are funds (\$662,000) to evaluate and line damaged piping sections between the Beebe Cove and Mumford Cove pump stations.

Engineering: Consultant

Construction: Contractor

Impact on operating budget: No impact

Sustainability Goals: Not applicable

RECOMMENDED FINANCING (000)

	Source of Funds*	Estimated Funding by Year						Total Estimated Cost
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	
A. Planning and Engineering	O			22				22
B. Land and Right of Way								0
C. Construction	O		572	555	595	662		2384
D. Equipment	O			796				796
E. Other Costs	O	51						51
Total	O	51	572	1373	595	662	0	3253

\*Funding

(C) Capital Reserve Fund

(G) General Obligation Bonds

(O) Other (WPCF User Fees)

CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL																																																																													
PROJECT				ACTIVITY/DEPARTMENT																																																																									
B) PUMP STATIONS				10) WATER POLLUTION CONTROL AUTHORITY																																																																									
DESCRIPTION/PURPOSE/JUSTIFICATION																																																																													
<p>These projects have been approved by the Water Pollution Control Authority as part of their annual budget and are paid from the user fees collected. This project replaces worn out or outdated mechanical and electrical equipment located in the collection system's 22 pump stations. This also includes structural repairs to the facilities, replacement of underground and above ground fuel tanks and odor control.</p> <p>Approved for FYE 16 were funds (\$213,000) to replace underground oil storage tanks with above ground tanks and (\$79,000) to replace the existing emergency generator in the Gravel Street pump station.</p> <p>Requested for FYE 17 are funds (\$160,000) to replace critical operational valves at the following pump stations: Poquonnock River, Beebe Cove, Mumford Cove, Gravel Street, Goss Cove and Little Gibraltar. The valves' purposes include isolating wet wells, isolating pumps for repair/replacement, and isolating the pump station for emergency bypasses or other emergencies. The valves are original equipment and no longer serviceable or reparable.</p> <p>Requested for FYE 17 are funds (\$161,000) to replace emergency generators at the Fieldcrest and Noank pump stations. The generators were obsolete, no longer being manufactured and replacement parts are difficult to procure. These generators power the pump stations in the event of loss of commercial power.</p> <p>Requested for FYE 17 are funds (\$228,000) to replace an existing motor control center (MCC) two Flomatchers and two pump motors at the Poquonnock Bridge Pump Station. The current equipment is aged, obsolete and replacement parts are no longer manufactured.</p> <p>Programmed for FYE 18 are funds (\$109,000) to replace the emergency generators at the Trails Corner and Lestertown Road pump stations and to install a new generator at the Burgess Park pump station.</p> <p>Engineering: Consultant Construction: Contractor Impact on operating budget: Energy savings Sustainability Goals: Goal 1 (reduce overall energy use)</p>																																																																													
RECOMMENDED FINANCING (000)																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Source of Funds*</th> <th colspan="6">Estimated Funding by Year</th> <th rowspan="2">Total Estimated Cost</th> </tr> <tr> <th>FYE2017</th> <th>FYE2018</th> <th>FYE2019</th> <th>FYE2020</th> <th>FYE2021</th> <th>FYE2022</th> </tr> </thead> <tbody> <tr> <td>A. Planning and Engineering</td> <td style="text-align: center;">O</td> <td style="text-align: center;">65</td> <td></td> <td style="text-align: center;">117</td> <td></td> <td></td> <td></td> <td style="text-align: center;">182</td> </tr> <tr> <td>B. Land and Right of Way</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>C. Construction</td> <td style="text-align: center;">O</td> <td style="text-align: center;">484</td> <td style="text-align: center;">109</td> <td style="text-align: center;">4855</td> <td style="text-align: center;">521</td> <td style="text-align: center;">457</td> <td></td> <td style="text-align: center;">6426</td> </tr> <tr> <td>D. Equipment</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>E. Other Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;">O</td> <td style="text-align: center;">549</td> <td style="text-align: center;">109</td> <td style="text-align: center;">4972</td> <td style="text-align: center;">521</td> <td style="text-align: center;">457</td> <td style="text-align: center;">0</td> <td style="text-align: center;">6608</td> </tr> </tbody> </table>										Source of Funds*	Estimated Funding by Year						Total Estimated Cost	FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	A. Planning and Engineering	O	65		117				182	B. Land and Right of Way								0	C. Construction	O	484	109	4855	521	457		6426	D. Equipment								0	E. Other Costs								0	<b>Total</b>	O	549	109	4972	521	457	0	6608
	Source of Funds*	Estimated Funding by Year						Total Estimated Cost																																																																					
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022																																																																						
A. Planning and Engineering	O	65		117				182																																																																					
B. Land and Right of Way								0																																																																					
C. Construction	O	484	109	4855	521	457		6426																																																																					
D. Equipment								0																																																																					
E. Other Costs								0																																																																					
<b>Total</b>	O	549	109	4972	521	457	0	6608																																																																					
<p>*Funding (C) Capital Reserve Fund (G) General Obligation Bonds (O) Other (WPCF User Fees)</p>																																																																													

CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL (ADDENDUM)	
PROJECT	ACTIVITY/DEPARTMENT
B) PUMP STATIONS	10) WATER POLLUTION CONTROL AUTHORITY
ADDITIONAL INFORMATION	
<p>Programmed for FYE 19 are funds (\$4,704,000) for mechanical/electrical rehabilitation at the Poquonnock River, Goss Cove, Beebe Cove, Gravel Street, and Little Gibraltar pump stations and (\$117,000) for engineering, inspection, testing and design of structural repairs for the Little Gibraltar pump station. Also programmed for FYE 19 are funds (\$151,000) to replace the emergency generators at the Bridge Street, Little Gibraltar and Beach Road pump stations.</p> <p>Programmed for FYE 20 are funds (\$325,000) to replace communitors at the Goss Cove, Munford Cove, Beebe Cove, Gravel Street, and Little Gibraltar pump stations. Also programmed for FYE 20 are funds (\$196,000) to replace the emergency generators at the Goss Cove, Gravel Street, Country Glen and Tower Avenue pump stations.</p> <p>Programmed for FYE 21 are funds (\$331,000) to update and standardize instrumentation and controls at the Poquonnock River, Goss Cove, Mumford Cove, Gravel Street, and Little Gibraltar pump stations. Also programmed for FYE 21 are funds (\$126,000) to replace the emergency generators at the Brookview and Poquonnock Bridge pump stations.</p>	

CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL																																																																													
PROJECT			ACTIVITY/DEPARTMENT																																																																										
C) TREATMENT FACILITY			10) WATER POLLUTION CONTROL FACILITY																																																																										
DESCRIPTION/PURPOSE/JUSTIFICATION																																																																													
<p>These projects have been approved by the Water Pollution Control Authority as part of their annual budget and are paid from the user fees collected. This project addresses the need to maintain the exteriors of the buildings as well as the interior structural components.</p> <p>Approved in FYE 16 were funds (\$1,106,000) to install an above ground heating oil storage tank, replace the existing steam boiler with a hot water boiler, relocate the mechanics' workshop, and install a heat exchanger for the emergency generator.</p> <p>Requested for FYE 17 are funds (\$158,000) for engineering and construction to replace the two remaining Flomatchers that control the two raw sewage pumps at the WPCF Treatment Plant. Flomatchers are archaic technology and failure during a storm event could result in sewer overflows. Also requested for FYE 17 are funds (\$393,000) for engineering and construction to rehabilitate primary clarifier #2 at the Treatment Plant. Failure of this equipment during high flow events would significantly impede the plant's ability to properly treat effluent thereby resulting in permit violations and potential fines.</p> <p>Programmed for FYE 18 are funds (\$130,000) for inspection and repair of air relief valves, diffusers, manholes, and piping throughout the WPCF and (\$104,000) for updates to the Supervisory Control and Data Acquisition System. Programmed for FYE 19 are funds (\$1,699,000) to upgrade sludge processing, rehabilitate primary clarifier #1, rehabilitate primary clarifier #2, renovate and modernize the laboratory, and study installation of alternative disinfection systems.</p> <p>Programmed for FYE 20 are funds (\$399,000) for a new equipment storage building, and to replace two obsolete aeration blowers.</p> <p>Programmed for FYE 21 are funds (\$638,000) to install wireless control and data capture architecture, and remove the old incinerator and renovate the area for better energy efficiency and storage space.</p> <p>Engineering: Consultant Construction: Contractor Impact on operating budget: Energy efficient boilers will reduce cost by decreased fuel use Sustainability Goals: Goal 1 (reduce overall energy use)</p>																																																																													
RECOMMENDED FINANCING (000)																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 25%;"></th> <th rowspan="2" style="width: 10%;">Source of Funds*</th> <th colspan="6" style="width: 55%;">Estimated Funding by Year</th> <th rowspan="2" style="width: 10%;">Total Estimated Cost</th> </tr> <tr> <th>FYE2017</th> <th>FYE2018</th> <th>FYE2019</th> <th>FYE2020</th> <th>FYE2021</th> <th>FYE2022</th> </tr> </thead> <tbody> <tr> <td>A. Planning and Engineering</td> <td style="text-align: center;">O</td> <td style="text-align: center;">50</td> <td></td> <td style="text-align: center;">11</td> <td></td> <td></td> <td></td> <td style="text-align: center;">61</td> </tr> <tr> <td>B. Land and Right of Way</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>C. Construction</td> <td style="text-align: center;">O</td> <td style="text-align: center;">501</td> <td style="text-align: center;">234</td> <td style="text-align: center;">1688</td> <td style="text-align: center;">399</td> <td style="text-align: center;">638</td> <td></td> <td style="text-align: center;">3460</td> </tr> <tr> <td>D. Equipment</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>E. Other Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;">O</td> <td style="text-align: center;">551</td> <td style="text-align: center;">234</td> <td style="text-align: center;">1699</td> <td style="text-align: center;">399</td> <td style="text-align: center;">638</td> <td style="text-align: center;">0</td> <td style="text-align: center;">3521</td> </tr> </tbody> </table>										Source of Funds*	Estimated Funding by Year						Total Estimated Cost	FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022	A. Planning and Engineering	O	50		11				61	B. Land and Right of Way								0	C. Construction	O	501	234	1688	399	638		3460	D. Equipment								0	E. Other Costs								0	<b>Total</b>	O	551	234	1699	399	638	0	3521
	Source of Funds*	Estimated Funding by Year						Total Estimated Cost																																																																					
		FYE2017	FYE2018	FYE2019	FYE2020	FYE2021	FYE2022																																																																						
A. Planning and Engineering	O	50		11				61																																																																					
B. Land and Right of Way								0																																																																					
C. Construction	O	501	234	1688	399	638		3460																																																																					
D. Equipment								0																																																																					
E. Other Costs								0																																																																					
<b>Total</b>	O	551	234	1699	399	638	0	3521																																																																					
<p>*Funding (C) Capital Reserve Fund (G) General Obligation Bonds (O) Other (WPCF User Fees)</p>																																																																													

**TOWN OF GROTON  
FYE 2017 PROPOSED BUDGET**

**APPENDICES**

Glossary  
Acronyms  
Object Codes with Descriptions